

REMARKS

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Status of Claims:

Claims 12, 13, 15, and 18 are currently being amended.

No claims are currently being added or canceled.

This amendment and reply amends claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claims remain under examination in the application, is presented, with an appropriate defined status identifier.

After amending the claims as set forth above, claims 1-18 are pending in this application.

Claim Rejections – Double Patenting:

In the Office Action, claims 1-18 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-18 of U.S. Patent No. 6,643,256 to Shimojo et al. in view of U.S. Patent No. 6,967, to Aimoto. Due to the filing of a terminal disclaimer concurrently herewith, this rejection has been overcome.

Claim Rejections – 35 U.S.C. § 101:

In the Office Action, claim 18 was rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Based on the amendments made to claim 18 that correspond to the helpful suggestion provided on page 11 of the Office Action, this rejection has been overcome.

Claim Rejections – 35 U.S.C. § 112, 1st and 2nd Paragraphs:

In the Office Action, claims 12 and 13 were rejected under 35 U.S.C. § 112, 1st and 2nd paragraphs, and claim 15 was rejected under 35 U.S.C. § 112, 2nd paragraph, for the reasons set forth on pages 11 and 12 of the Office Action. By way of this amendment and reply, claims 12, 13 and 15 have been amended to overcome these rejections. In more detail, claims 12 and 13 have been amended to clarify that these claims refer to a plurality of packets constituting one datagram, as fully described in page 25, line 10 to page 26, line 9 of the specification. Also, claim 15 has been amended to clarify that this claim refers to a

connection pattern for connecting the input side transfer units and the output side transfer units in the switching unit such that a result of switching packets at the switching unit coincides with a result of the simulation, where the simulation is defined as a simulation for simulating a case in which each packet is assumed to be transferred through a virtual switching network having a topology in which a packet collision may occur and a packet to be transferred at higher priority among colliding packets is selected according to the priority level attached to each colliding packet when the packet collision occurs in the virtual switching network.

Consequently, claims 12, 13 and 15, as amended, now fully comply with 35 U.S.C. 112, 1st and 2nd paragraphs.

Claim Rejections – Prior Art:

In the Office Action, claims 1, 3, 4, 8, 9 and 17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,967,924 to Aimoto in view of U.S. Patent No. 6,347,087 to Ganesh et al. and further in view of U.S. Patent No. 5,940,399 to Weizman; claim 2 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Aimoto in view of Ganesh and Weizman and further in view of U.S. Patent No. 6,222,823 to Smith et al.; claims 6 and 7 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Aimoto in view of Ganesh and Weizman and further in view of U.S. Patent No. 5,777,984 to Gun et al.; claim 11 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Aimoto in view of Ganesh and Weizman and further in view of U.S. Patent No. 6,396,809 to Holden et al.; claim 14 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Aimoto in view of Ganesh and Weizman and further in view of U.S. Patent No. 5,790,522 to Fichou et al.; claims 15 and 16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Aimoto in view of Ganesh and Weizman and further in view of U.S. Patent No. 6,707,800 to Peyrovian et al.; and claim 18 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Ganesh in view of Aimoto. These rejections are traversed with respect to the presently pending claims, for at least the reasons given below.

First, it is noted with appreciation that claims 5, 10, 12 and 13 are not rejected over any art of record (besides the obviousness-type double patenting rejection that has been dealt with by the filing of a terminal disclaimer).

First, regarding claim 1, the Office Action correctly recognizes that Aimoto fails to disclose the claimed priority level attaching unit and the claimed packet selection unit; however, the Office Action incorrectly asserts that the claimed priority level attaching unit is disclosed by Ganesh and that the claimed packet selection unit is disclosed by Weizman.

However, the content-based forwarding logic 60 of Ganesh only evaluates the incoming frame by looking at its content, and only optionally changes its priority. Thus, Ganesh fails to teach or suggest a priority level attaching unit for attaching a priority level to each packet according to the congestion status of one of the output side transfer units, as explicitly recited in claim 1.

Moreover, the arbiter of Weizman only realizes the priority scheme based on the priority information based on the delay requirements of the packets or frames. Thus, Weizman fails to teach or suggest a packet selection unit for selecting a packet to be transferred according to the priority level based on the congestion status of one of the output side transfer units, as explicitly recited in claim 1.

Consequently, a combination of Aimoto, Ganesh and Weizman fails to teach or suggest the use of the priority level based on the congestion status of one of the output side transfer units in selecting a packet to be transferred at a packet switch, as explicitly recited in claim 1, and therefore the rejection of claim 1 made in the Office Action based on a combination Aimoto, Ganesh and Weizman should be reconsidered and withdrawn.

The same argument also applies to the dependent claims 2-14, as well as the corresponding method claim 17 and the corresponding medium claim 18.

Next, regarding claim 15, the Office Action correctly recognizes that Aimoto fails to disclose the claimed connection pattern calculation engine; however, the Office Action incorrectly asserts that the claimed connection pattern calculation engine is disclosed by Ganesh, Peyrovian and Weizman.

However, the content-based forwarding logic 60 of Ganesh only evaluates the incoming frame by looking at its content, and only optionally changes its priority. Thus, Ganesh fails to teach or suggest a priority level to each packet according to the congestion status of one of the output side transfer units, as explicitly recited for the connection pattern calculation engine of claim 15.

Moreover, the processing of packets disclosed by Peyrovian is clearly not a simulation of anything, but rather it is the actual processing for switching ATM cells at the ATM switches. Thus, Peyrovian fails to teach or suggest anything concerning the carrying out of a simulation for simulating a case in which each packet is assumed to be transferred through a virtual switching network having a topology in which a packet collision may occur and a packet to be transferred at higher priority among colliding packets is selected according to the priority level based on the congestion status of one of the output side transfer units which is attached to each colliding packet when the packet collision occurs in the virtual switching network, as explicitly recited for the connection pattern calculation engine of claim 15.

In addition, Peyrovian fails to teach or suggest anything concerning the determining of a connection pattern for connecting the input side transfer units and the output side transfer units in the switching unit such that a result of switching packets at the switching unit coincides with a result of the simulation, as explicitly recited for the connection pattern calculation engine of claim 15.

Furthermore, the arbiter of Weizman only realizes the priority scheme based on the priority information based on the delay requirements of the packets or frames. Thus, Weizman fails to teach or suggest anything concerning the selecting of a packet to be transferred according to the priority level based on the congestion status of one of the output side transfer units, as explicitly recited for the simulation to be carried out by the connection pattern calculation engine of claim 15.

Consequently, a combination of Aimoto, Ganesh, Weizman and Peyrovian fails to teach or suggest the use of a priority level based on a congestion status of one of output side transfer units in carrying out a simulation for the purpose of determining a connection pattern in a switching unit of a packet switch, as explicitly recited in claim 15. Therefore, the rejection made in the Office Action based on a combination Aimoto, Ganesh Weizman and Peyrovian should be reconsidered and withdrawn.

The same argument provided above for dependent claim 15 also applies to dependent claim 16.

Conclusion:

Since all of the issues raised in the Office Action have been addressed in this Amendment and Reply, Applicants believe that the present application is now in condition for allowance, and an early indication of allowance is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741.

If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicants hereby petition for such extension under 37 C.F.R. §1.136 and authorize payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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